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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/676,175	09/29/2000	Orna Etzion	42390.P7512	1540

7590 11/06/2003

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EXAMINER

MEONSKE, TONIA L

ART UNIT	PAPER NUMBER
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2183

DATE MAILED: 11/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/676,175	Applicant(s) ETZION, ORNA	
	Examiner Tonia L Meonske	Art Unit 2183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. This application lacks formal drawings. The informal drawings filed in this application are acceptable for examination purposes. When the application is allowed, applicant will be required to submit new formal drawings.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 6, and 11 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Henry et al., US Patent 6,134,573.

4. Referring to claims 1, 6, and 11, Henry et al. have taught

a. translating a first block of instructions executable in a first processor architecture (abstract, column 1, lines 25-32, column 2, lines 5-12, column 11, lines 23-30, column 6, lines 41-54, First block of instructions is the floating point instructions that contain relative register references.), into a translated first block of instructions executable in a second processor architecture (abstract, column 1, lines 25-32, column 2, lines 5-12, column 11, lines 23-30, column 6, lines 41-54, The translated first block of instructions is the floating point instructions that contain absolute register references.), said translated

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first block of instructions operating with a stack of data entry positions (Figure 4, element 441); and

- b. generating an expected Top of Stack (TOS) position in said stack for said first block of code (Figure 6, element 612, column 11, line 61-column 12, line 3).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(A) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 3, 7, 8, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henry et al., US Patent 6,134,573 in view of Computer Architecture, Pipelined and Parallel Processing Design, Michael J. Flynn (herein after referred to as Flynn).

7. Referring to claims 2, 7, and 12 Henry et al. have taught the method and logic of claims 1, 6, and 11, as described above, Henry et al. has not specifically taught adding at least one instruction to said translated first block of instructions to determine if said first expected TOS is equal to an actual TOS at a time of executing said translated first block of instructions, however, the TOS in Henry et al. is merely a predicted value. When executing instructions based on a predicted value, the outcome of the prediction must be determined before affecting the final register state, as taught by Flynn (page 492, last paragraph). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the system of Henry et al., add at least one instruction to said translated first block of instructions to determine

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if said first expected TOS is equal to an actual TOS at a time of executing said translated first block of instructions, for the desirable purpose of determining the outcome of the prediction in order to properly commit the values to the final register state (Flynn, page 492, last paragraph).

8. Referring to claims 3, 8, and 13 Henry et al., in combination with Flynn have taught the method and logic of claims 2, 7, and 12, as described above, and wherein said instruction added to said first block of instruction, branches to correction code if said expected TOS is not equal to said actual TOS (Figure 6, element 618, column 11, lines 50-54, column 15, lines 56-64).

9. Claim 4, 5, 9, 10, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henry et al., US Patent 6,134,573 in view of Computer Architecture, Pipelined and Parallel Processing Design, Michael J. Flynn (herein after referred to as Flynn) and Goettelmann et al., US Patent 5,577,233.

10. Referring to claims 4, 5, 9, 10, 14 and 15 Henry et al. in combination with Flynn have taught the method and logic of claims 3, 8, and 13, as described above. They have not specifically taught: determining if execution of instruction is said first block of instructions changes the actual TOS, and in response to determining execution of instructions in said first block of instructions changes the actual TOS, adding an instruction to an end of the first block of instructions to update the actual to TOS. However, Goettelman et al. have taught determining if execution of instructions changes a memory (Figure 9, element 902) in response to determining if the execution of instructions changes memory, the invention of Goettelmann et al. adds an instruction to update the actual memory (Figure 9, element, 904, The real memory or actual memory is updated when memory has changed.) for the desirable purpose of minimizing code when memory does not change so that unnecessary instructions are eliminated. It would have

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been obvious to one of ordinary skill in the art at the time the invention was made to have the invention of Henry et al., determine execution of instructions in said first block of instructions changes the actual TOS, and adding an instruction to an end of the first block of instructions to update the actual to TOS, as taught by Goettelmann et al., for the desirable purpose of minimizing unnecessary code resulting from instructions that don't change memory (Figure 9, column 3, line 50-column 4, line 41).

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tonia L Meonske whose telephone number is (703) 305-3993. The examiner can normally be reached on Monday-Friday, 9-6:30, with every other Friday off.

12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie P Chan can be reached on (703) 305-9712. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

13. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

tlm
October 30, 2003



**RICHARD L. ELLIS
PRIMARY EXAMINER**